REPORT - PLANNING COMMISSION MEETING
June 10, 2004

Project Name and Number:	**Health and Safety Element Update for Fire Department Response Time Standards (PLN2004-00296)**
Applicant:	**City of Fremont**
Proposal:	To consider a General Plan Text Amendment to amend Chapter 10 (Health and Safety) of the General Plan to reflect the revised Fire Department response time standards.
Recommended Action:	Recommend to City Council
Location:	Citywide
Assessor Parcel Number(s):	Citywide
Area:	Not applicable
Owner:	Not applicable
Agent of Applicant:	Geoffrey LaTendresse
Consultant(s):	None
Environmental Review:	This General Plan Text Amendment will not have the potential for causing a significant effect on the environment and therefore is not subject to CEQA under Section 15061(b)(3)
Existing General Plan:	Not applicable
Existing Zoning:	Not applicable
Existing Land Use:	Not applicable

Public Hearing Notice: Public hearing notification is applicable. A notice of public hearing consisting of a one-eighth (1/8)-page display advertisement was delivered to The Argus on May 24, 2004 to be published May 27, 2004.

Background and Previous Actions: The City Council, at its May 11, 2004 meeting, accepted the Fire Department Standards of Coverage Report. This report provided a comprehensive analysis of the Fire Department's ability to provide fire and emergency services to the community based upon the characteristics and demographics that make up the City. The report identified the need to modify the General Plan text of Chapter 10 (Health and Safety) to reflect the Fire Department's response times in emergency situations. This General Plan Text Amendment implements the changes to reflect those updated response times.

Project Description: The proposal is to amend the text of the Health and Safety Chapter (Chapter 10) of the General Plan to reflect current City of Fremont Fire Department standards for response time. At the City Council meeting of May 11, 2004, the City Council accepted the Fire Department's Standards of Coverage Report. The Standards of Response Coverage evaluation was a structured process developed to objectively and comprehensively examine the ability of an emergency resource deployment system to respond to anticipated incidents within a community. The study was designed to inventory existing building stock, identify and anticipate the impacts of new development and changes in demographics, to analyze historic response performance and experience and to recommend improvement options if appropriate. Objective standards, measurements, practical goals and benchmarks were additionally used as a component of the evaluation and were further utilized to monitor and define service improvements. The outcome of the report was the development of a defined basic level of recommended fire and emergency medical services (EMS) protection for the City

along with identified steps needed to achieve that goal. Additionally, the report is intended to be updated annually to reflect changes in experience and other factors that may influence performance.

The Health and Safety Chapter of the General Plan makes numerous references to a five minute response time in the event of an emergency. The revised response time is five minutes 30 seconds for 90 percent of all emergency calls. The five minute 30 second response time is consistent with the national industry standard for response time. These response time changes are shown in Exhibit A – General Plan Text Amendment.

Since the Comprehensive General Plan update in 1991, several changes have occurred to strengthen the City of Fremont's fire prevention efforts.

- The California Building Code (CBC) and the Uniform Fire Code (UFC), both adopted by the City of Fremont, now require that all new construction, whether residential, commercial or industrial, must include a fire sprinkler system or an automatic fire extinguishing system (AFES). In addition, increases in square footage, changes of use, or damage to a structure due to fire or disasters may also require fire sprinkler or automatic fire extinguishing systems to be installed.

- Previous regulations required two points of ingress and egress when 80 or more dwelling units are served in a development. The UFC lowered the threshold and now requires two points of ingress and egress, or enhanced fire suppression systems, when 25 or more dwelling units are served in a development.

- The City of Fremont has improved the Insurance Service Organization rating to "2" since the last General Plan update. (The Insurance Service Organization serves as an independent organization with a mission to evaluate public agencies and serve the insurance industry as a source of information about property and liability risk.) The rating ranges from 1 (highest rating) to 9 (lowest).

- In November of 2002, the Fremont voters passed the Fire Safety Bond Measure. This provides funds for seismic safety enhancements and remodeling for seven fire stations, replacement of three fire stations with new facilities, and a Fire Department Training Center.

In addition to the proposed changes to the response time, changes were made to other portions of the Fire Hazards and Emergency Response section of Chapter 10 to reflect the changes noted above. The proposed changes are shown in underline and strike-out in Exhibit A – General Plan Text Amendment.

PROJECT ANALYSIS:

General Plan Conformance: The proposed General Plan Text amendment is consistent with the General Plan as follows:

Health and Safety (HS) 5, Policy 5.1.2, Implementation 1: Periodically review the achievement of response-time goals, and identify possible improvements in service of facilities.

The City of Fremont Fire Department, as part of this implementation measure, reviewed the achievement of response-time goals in their Fire Department Standards of Coverage Report. The proposed General Plan Text Amendment reflects more accurately the Fire Department's emergency response.

The remainder of Fire Hazards and Emergency Response section was updated to reflect key changes made to strengthen the Fire Department's fire prevention requirements. The Fire Department has been able to maintain a fire response time that is consistent with nationally accepted industry standards.

ENVIRONMENTAL ANALYSIS: The proposed project has been reviewed under the California Environmental Quality Act (CEQA) Guidelines and has been found to be exempt under Section 15061(b)(3). The General Plan Text Amendment will not have the potential for causing a significant effect on the environment and therefore is not subject to CEQA.

Response from Agencies and Organizations: There have been no responses from agencies or organizations at the time of printing this report.

EXHIBITS: Exhibit "A" General Plan Text Amendment

ENCLOSURES: Exhibit "A" (General Plan Text Amendment)
Exhibit "1" City Council report Fire Department Standards of Coverage Report dated May 11, 2004

Recommended Actions:

1. Hold public hearing.

2. Recommend that the City Council find the proposed project has been reviewed under the California Environmental Quality Act (CEQA) Guidelines and has been found to be exempt under Section 15061(b)(3). The General Plan Text Amendment will not have the potential for causing a significant effect on the environment and therefore is not subject to CEQA.

3. Recommend that the City Council find that the proposed General Plan Text changes are in conformance with the City's General Plan under Health and Safety (HS) Goal 5: Objective HS 5.1: Policy 5.1.2: Implementation 1 as detailed in the staff report.

4. Recommend that the City Council amend the General Plan Text of Chapter 10 (Health and Safety) as set forth in Exhibit A.

Exhibit "A"
General Plan Text Amendment – PLN2004-00296
Health and Safety Element Update for Fire Department Response Time Standards

The following is an excerpt of several portions of Chapter 10 (Health and Safety Element) of the General Plan and identifies proposed revisions. New text is shown in underline and deleted text is shown in ~~strikethrough~~.

FIRE HARZARDS AND EMERGENCY RESPONSE

The City's Fire Department is not only called on to fight fires, but is often the first agency called in the event of a medical or other emergency. As a result, the role and function of the Fire Department has broadened beyond its traditional role of fighting fires to include response to other types of emergencies, including those related to medical and hazardous materials. Over the past 5 years, fire has accounted for approximately 3~~9~~% of the calls to the Fire Department. This includes buildings, vehicles, grass, and all other types of fires. About 60% of the calls were for other emergencies and the remaining ~~31~~37% were for citizen assistance.

This section discusses the City's current efforts to minimize risk from fire and to respond to fires and other types of emergencies when they occur. The role of the Fire Department in regards to hazardous materials is summarized in this section; however, the overall response of the City to hazardous materials is discussed in the "Hazardous Materials" section of this Chapter.

Since adoption of the 1991 General Plan, several changes have occurred to strengthen the City of Fremont's fire prevention program. The California Building Code (CBC) and the Uniform Fire Code (UFC), both adopted by the City of Fremont, now require that all new construction (including residential, commercial and industrial) must include a fire sprinkler system or an automatic fire extinguishing system (AFES). Increases in square footage, changes in use, or damage to a structure due to fire or disasters may also require fire sprinkler or automatic fire extinguishing systems to be installed. Previous regulations required two points of ingress and egress when 80 or more dwelling units are served in a development. The UFC now requires two points of ingress and egress, or enhanced fire suppression systems, when 25 or more dwelling units are served in a development.

Setting

Emergency Response

When emergencies occur the City seeks to ensure there is adequate and timely response. Because quick emergency response is critical in fire suppression and other emergencies, the City Council established a goal of a five minute 30 second response for 9~~5~~0 percent of all emergency calls. The five minute 30 second response goal is based on the rate fire spreads and the length of time a non breathing person can survive. A fire will square itself every minute it is allowed to burn. According to the American Heart Association, irreversible brain damage occurs within four to six minutes of a patient becoming pulseless and non-breathing with cardiac defibrillation being most effective when delivered prior to six minutes. Response time includes ~~receipt of alarm, dispatch of engine or ladder truck, and response time~~ drive time and turn-out time. (Turn-out time includes fire station receipt of alarm, fire crew readiness and fire apparatus initiation of travel.)

~~In 1985, the City Council adopted a plan for improving fire and emergency response service. The plan called for expansion of the City's then existing 8 station to 11 stations as well as other improvements. By the end of 1990, the City had re-located Engine 4 and added Engine 10. Another, Engine 9, is scheduled to open in the fall of 1991 bringing the total number of stations to 10. The areas within a five minute response time (1990) are shown in Figure 10-7. The Fire Department estimates that in 1989 it met the five minute goal 70 percent of the time for most of the City. In areas remote from station locations, the Department met this goal 50 percent of the time. It expects the recently completed and proposed stations will significantly improve its response time percentage for most areas within the City.~~

In addition to the response time goal for a single company response, a second response time goal described as 'Concentration' is equally important. Concentration is defined as the amount of time required to place a full alarm assignment (minimum 14 firefighters) on the scene of all structure fires. The number of firefighters (14) is significant because it is the minimum number required to carry out all of the critical tasks at a structure fire safely and efficiently.

In Fremont, the Fire Department goal is to respond to all structure fires such that the full assignment (minimum of 14 firefighters) will arrive at the scene within nine (9) minutes, thirty (30) seconds, (1 minute, 30 second turnout time and 8 minute travel time), 90 percent of the time.

Fire Prevention

All proposed development projects in the City are reviewed to ensure appropriate measures are taken to minimize risk from fire. Projects are reviewed for adequacy of access, design features (setbacks and clearance between buildings), and compliance with code requirements. Access is particularly important to ensure fire and other emergency apparatus can reach fires, and people can escape in the event of an emergency. Provision of alternate access routes to developed areas is an important principle and is becoming more important as ~~Fremont's hilly areas are developed.~~ the community develops.

[Figure 10-7]

Buildings 7~~0~~5 feet (approximately seven stories) or more in height are considered high rise under the ~~Uniform~~ California Building Code (~~U~~CBC). Sprinklers and other safety features are required in these buildings. Sprinklers are also required in all new building construction (residential, commercial and industrial). Increases in square footage, changes of use, or damage to a structure due to fire or disasters may also require that a fire sprinkler or similar system be installed. ~~buildings over 5000 square feet, where more than 50 people may assemble regardless of the activity or the number of floors, and in locations beyond five minutes response time (mostly in the hills). Proposals to create view lots tends to move more people into the critical fire area. All hospitals are required to have sprinkler systems. Some buildings containing hazardous materials may be required to have sprinkler systems depending on the quantity and characteristics of the hazardous materials regardless of the number of square feet or number of floors.~~

Despite continuing improvements in response and equipment, some areas and types of buildings present special risks and problems in fire prevention and emergency response. These are described below.

High rise and High Intensity Buildings

High rise buildings present special problems of access and emergency exit during fires or other emergencies. Moving fire fighters and equipment up stairways to the upper stories increases response time and delays emergency access. To reduce the risk of death or injury related to fire in a high rise building, built-in protection such as early warning and detection systems, automatic sprinklers, fire resistive materials and appropriate design of structures is required.

Higher density residential and commercial development presents some increased fire risk due to the intensity of use and greater chance of fire spreading from one living unit or business to another. When high density residential or commercial development is proposed the Fire Department reviews development plans for adequacy of water supply, noncombustible roofing, one-hour rated exterior walls, adequacy of exits and entrances, fire lanes (if required), and sufficient clearance between structures.

Industrial Fires and Hazardous Material Release

Industrial fires and hazardous material releases present special hazards, both to the firefighter and the community. Industrial fires may include hazardous substances, and the fire may spread the hazardous material into the environment,

endangering other areas in the community. The City has a Hazardous Materials Response Team specially trained to make a preliminary assessment of the type of material involved in an emergency. Additionally, one fire ~~engine~~ apparatus has specialized ~~apparatus and~~ equipment necessary for hazardous material incident response.

The City maintains records of the type of hazardous materials used and stored in the City. Users are required to comply with Chapter 12, Title III of the Fremont Municipal Code- (Hazardous Materials Management, the California Fire Code and Title 27 of the California Code of Regulations which include administrative inspections, enforcement elements and ~~the Hazardous Materials Ordinance~~ and permitting process. Of particular concern are those facilities which use extremely hazardous materials in production processes. Fires, explosions or releases of hazardous materials could block streets, damage adjacent properties and require evacuation or sheltering in place ~~-~~of the surrounding population (see below, Hazardous Materials, for further discussion).

Rail and highway transport of hazardous materials also present risks to the community due to accidents. The City has limited jurisdiction over the transport of these materials in regard to the designation of roads where they can be transported. The City cannot control rail-lines or State highways and freeways where the State has authority.

Residential Areas

Several residential areas, and especially recently developed areas, are outside of where the City can currently meet its five minute 30 second response goal. However, planned improvements to fire service will correct this situation for most residential areas. Residential areas where this goal will not be achieved after improvements are made is discussed under "Projections."

Hill Development

Residential development in the hills present special risks due to the proximity of undeveloped land where fires can easily spread and the time it takes for the Fire Department to respond in these areas. For these areas the City has special development requirements to minimize the risk of fire, including provision of adequate water supply, noncombustible roofing, one-hour rated exterior walls, irrigated greenbelt (wetbands) barriers, firebreaks, sufficient clearance between structures, and drought and fire-resistant irrigated landscaping. Fire roads and firebreaks must also be provided.

Regions above and below the "Toe of the Hill" (see Land Use Chapter for definition) present problems due to the dry, windy climatic conditions in addition to the rugged terrain and highly flammable native brush. These areas are particularly susceptible to wildfire, an uncontrollable brush fire fueled by this vegetation. The scattered existing homes in this area are generally outside the five minute 30 second response time of the City. Limited accessibility for emergency equipment could complicate emergency response and evacuation. The low density of housing in area limits the number of people and structures that could potentially contribute to the problem, as well as recent requirements for new development to include more defensible space against the spread of fire by the incorporation of "wet bands", which is green and watered landscaping with low flammability surrounding structures.

Generally, all of the area east of Mission Boulevard is designated a Critical Fire Area by the Fire Department from May through October.

Peakload Water Requirements

The peakload water requirement, or required water supply needed for fire protection, is closely related to land use. The quantity of water needed to fight a fire varies depending on the type of development, degree of fire hazard, and building occupancy. Peakload water requirements vary from 1,500 gallons per minute (gpm) for low density residential areas, up to 12,000 gpm in commercial and industrial areas.

A minimum residual pressure of 20 pounds per square inch (psi) should remain in the system while the required gallons per minute are flowing. This requires fire hydrants which meet the standards established by the Alameda County Water District and the City, and also, adequately sized water mains.

The Insurance Service Organization serves as an independent organization with a mission to evaluate public agencies and serve the insurance industry as a source of information about property and liability risk. The Insurance Service Organization (ISO) rates all cities for their emergency response capabilities and the availability of peak-load water to fight fires. The rating affects insurance costs for private property owners. The rating ranges from 1 (highest rating) to 9 (lowest). Fremont has received a rating of ~~three~~ two. The Alameda County Water District periodically runs fire flow tests in the City to verify that water pressure is maintained. If tests show pressure is substandard, improvement of the water system becomes a requirement for water service to the proposed development or building.

Some portions of Niles currently do not conform to the minimal residual water flow at 20 psi because of inadequately sized water mains, which existed prior to Fremont's incorporation. Niles Blvd. for this reason has recently been designated as a Hazardous Fire Area. New construction will be required to meet special construction standards to deal with the increased hazard. New development in the hill areas is also required to meet fire department standards and conditions including improved water service and special design features discussed previously.

Minimum Road Widths

Emergency equipment must be able to reach a site of an emergency and people in an area must be able to escape from danger. Roads must have sufficient width to allow fire and other emergency equipment to pass. To ensure sufficient access in the event of emergencies, Fremont requires two ingress-egress roads in developments that can accommodate fire and other emergency vehicles when 25 ~~80~~ or more dwelling units are served. Requirements have been established for minimum road width and overhead clearance, for all emergency access roads. The minimum road width for public streets varies depending on type of road (see Transportation Chapter for more detail). The narrowest public roads are cul-de-sac streets which must be at least 32 feet wide. Private roadways must generally be at least 28 feet wide in areas where development is less than 4 stories, and 36 feet where development is greater than 4 stories. Emergency access roads without auto traffic must be 20 feet wide and 28 feet wide where there are fire hydrants.

Overhead clearance, turning radii and turnaround areas are also regulated to insure emergency vehicle access. Emergency access roads must have at least 13 feet 6 inches of overhead clearance. The minimum required outside turning radius varies depending on planned use. Emergency access roads designed to accommodate an Engine Company must have a minimum outside radius of 38 feet and inside turning radius of 20 feet. Emergency access roads designed to accommodate a ~~Ladder~~ Truck Company must have a minimum outside turning radius of 50 feet and inside turning radius of 30 feet. Fire lanes, emergency access roads, dead end streets and alleys must end in a cul-de-sac or other approved turning area.

Emergency Response

The City's Fire Department also responds to medical emergencies. Medical emergencies are by far the most common type of emergency call. Of emergency calls received by the Fire Department in ~~1999~~ 2003, ~~58~~ 60% were for medical emergencies. The Fire Department is responsible for providing emergency pre-hospital care throughout the City. All members of engine and truck ~~ladder~~ companies are certified emergency medical technicians and at least one member ~~of each engine company~~ is a paramedic.

Emergency Training

Quick and adequate emergency response requires a well trained Fire Department. Training activities are conducted for all emergency functions of the Fire Department. The Fire Department routinely conducts training activities including fire suppression, rescue services and medical emergencies, inspection and fire prevention planning.

Projections

Fire Prevention and Response Time

In November 2002, the Fremont voters passed the Fire Safety Bond Measure. This provides for seismic and remodeling renovation for seven fire stations, replacement of three fire stations with new facilities (two will be relocated) and a Fire Department Training Center. ~~In addition to the existing 9 Fire Stations and the one under development, other improvements are proposed for the System.~~

Other proposed improvements include a new station located west of the freeway in the Industrial Area when call volume dictates. ~~the following :~~

- ~~a new station located west of the freeway in the Industrial Area~~
- ~~relocation of one existing Fire Station~~
- ~~reconstruction of one Fire Station.~~

Although response time will be improved with ~~the~~ an additional station~~s~~, there are still areas of the City which will be outside the 5 minute 30 second response time area. These are shown in Figure 10-8. There is an ongoing evaluation of fire response needs throughout the City.

[Figure 10-8]

High Rise and High Intensity Buildings

As development proceeds in the City there is likely to be additional construction of taller buildings, especially in the Central Business District area. Higher densities can also be expected. Project review to assess compliance with regulations and standards will continue to be especially important with high rise and high density commercial or residential development.

Industrial Fires and Hazardous Material Release

Industrial growth may increase the risk related to fires involving hazardous materials. Many industries use hazardous and flammable chemicals. A new fire station planned in the southern Industrial Area of Fremont west of the Nimitz Freeway (I-880) should help to provide improved service and response for this area when warranted by additional development. Additionally, large industrial complexes are often required by the City to have their own highly trained team of hazardous materials personnel and equipment to reduce the risk to employees and property (see discussion under Hazardous Materials, below).

Residential Areas

Additional development along the base of Fremont's eastern hills expected over the next few years. Most of these areas are within the expected five minute 30 second response time for the City, but face special hazards due to their relative isolation and proximity to open brush and grassland. The City's current fire prevention standards for developments will reduce the fire risk in these areas.

Development above the Toe of the Hill is controlled by the provisions of the Hill Area initiatives. Development is limited to one unit per 20 acres on land within the City of Fremont on January 1, 2002.

[break to Goals, Objectives, Policies and Implementation section]

Goals, Objectives, Policies and Implementation

Health and Safety Goals

Protection of the health and safety of its citizens is one of the primary jobs of local government. A city's planning must take into account physical constraints and ensure that necessary safety services can be provided. Many risks cannot be eliminated. Residents of the Bay Area must all live with the virtual certainty of another major earthquake, and that fires, floods and other natural disasters will occur. The overall goal of local government is to minimize risks to residents and provide appropriate services and planning to address problems when they occur. The following goals, objectives, policies and implementation measures are the City of Fremont's response to some of the health and safety risks facing this City.

GOAL HS 1: Minimum feasible risk to the community from land instability and other non-seismically induced geologic hazards

GOAL HS 2: Minimum feasible risk to residents and property due to seismic activity

GOAL HS 3: Minimum feasible risk to residents and property due to flooding and flood induced hazards

GOAL HS 4: Minimum feasible risk to residents and property due to fire hazards

GOAL HS 5: A five minute <u>30 second</u> response time for emergencies in areas below the toe of the hill

GOAL HS 6: Minimum feasible risk to lives and property due to the use and storage of hazardous materials and waste

GOAL HS 7: An emergency preparedness plan which provides effective response in the event of a natural or manmade disaster

GOAL HS 8: Noise at an acceptable level throughout the community

[break to Fire Hazards, Heath and Safety (HS) Goal 4 section]

FIRE HAZARDS

HEALTH AND SAFETY (HS) GOAL 4:
Minimum feasible risk to residents and property due to fire hazards

OBJECTIVE HS 4.1: Development locations and standards which limit the potential health and safety risks, and the risks of severe economic loss due to fire hazards

Policy HS 4.1.1: Provide an adequate level of fire equipment and personnel to protect the community.

Implementation 1: Continue to implement plan for improving fire service through expansion to 11 stations, movement of stations and other improvements.

Implementation 2: Periodically review existing and projected land uses within the City in regard to the need for fire stations, staff and equipment.

Implementation 3: Continue to review multi-story high occupancy development to ensure

compliance with the ~~Uniform~~ California Building Code and Fremont Fire Department standards for construction and adequacy of water flow for fire protection.

Implementation 4: Continue to require adequate fire flow (water quantity and duration) and hydrants as per City standards.

Implementation 5: Continue to encourage improvements where the required fire flow and minimum residual water pressure standards are not met.

Implementation 6: Consider designating areas not meeting the required fire flow or minimum residual water pressure standards as Hazardous Fire Areas.

Policy HS 4.1.2: Require adequate access and clearance for fire equipment, fire suppression personnel, and evacuation.

Implementation 1: Continue to review projects for necessary fire access and clearances.

Implementation 2: Continue to review industrial, commercial and institutional buildings more than 35 feet in height for adequacy of access and clearance, and require additional vehicular access or clearance areas as determined by the Fire Department.

Implementation 3: Continue to enforce existing regulations related to fire resistant construction, early warning fire detection system installation. Maintain accurate information on contents and processes used within structures and location and number of structures on a site.

Policy HS 4.1.3: Require fire mitigation measures in developments proposed outside a five minute 30 second response time area. Limit development in those areas where, despite fire mitigation measures, an acceptable level of protection is considered unattainable.

Implementation 1: Continue to review hillside subdivisions for adequate fire services and mitigation measures.

Implementation 2: Continue to require properties or processes with a potentially higher risk, or outside the five minute 30 second response area for fire protection services, to provide supplemental mitigation measures such as wetbands, fire resistant construction, sprinkler systems and early warning fire detection systems.

Implementation 3: Continue regulations and enforcement procedures to ensure maintenance of fire breaks in privately owned areas in the hills.

Policy HS 4.1.4: Promote fire safety and fire prevention in the community.

Implementation 1: Continue to provide fire safety demonstrations and presentations at public schools, civic and social organizations and other public gatherings.

Implementation 2: Continue to provide fire safety training at schools, industries and institutions.

Implementation 3: Continue to perform necessary analysis to focus fire prevention activities on current fire safety problems in Fremont.

HEALTH AND SAFETY (HS) GOAL 5:
A five minute 30 second response time for emergencies in areas below the toe of the hill

OBJECTIVE HS 5.1: **Maximum feasible achievement of a five minute 30 second response time for areas where response time is identified as achievable**

Policy 5.1.1: Continue to provide emergency response services throughout the City.

Policy 5.1.2: Consider improvements in services and facilities to provide maximum feasible achievement of a five minute 30 second response within the City.

Implementation 1: Periodically review the achievement of response-time goals, and identify possible improvements in service or facilities.

Policy 5.1.3: Continue to provide necessary training and equipment to improve emergency response.

Implementation 1: Continue to provide fire suppression and rescue service training.

Implementation 2: Periodically review training facilities to evaluate the need for expansion of existing facilities and the construction of new facilities.

Figure 10-7
10 Fire Station
5-Minute, 30-Second
Response Area

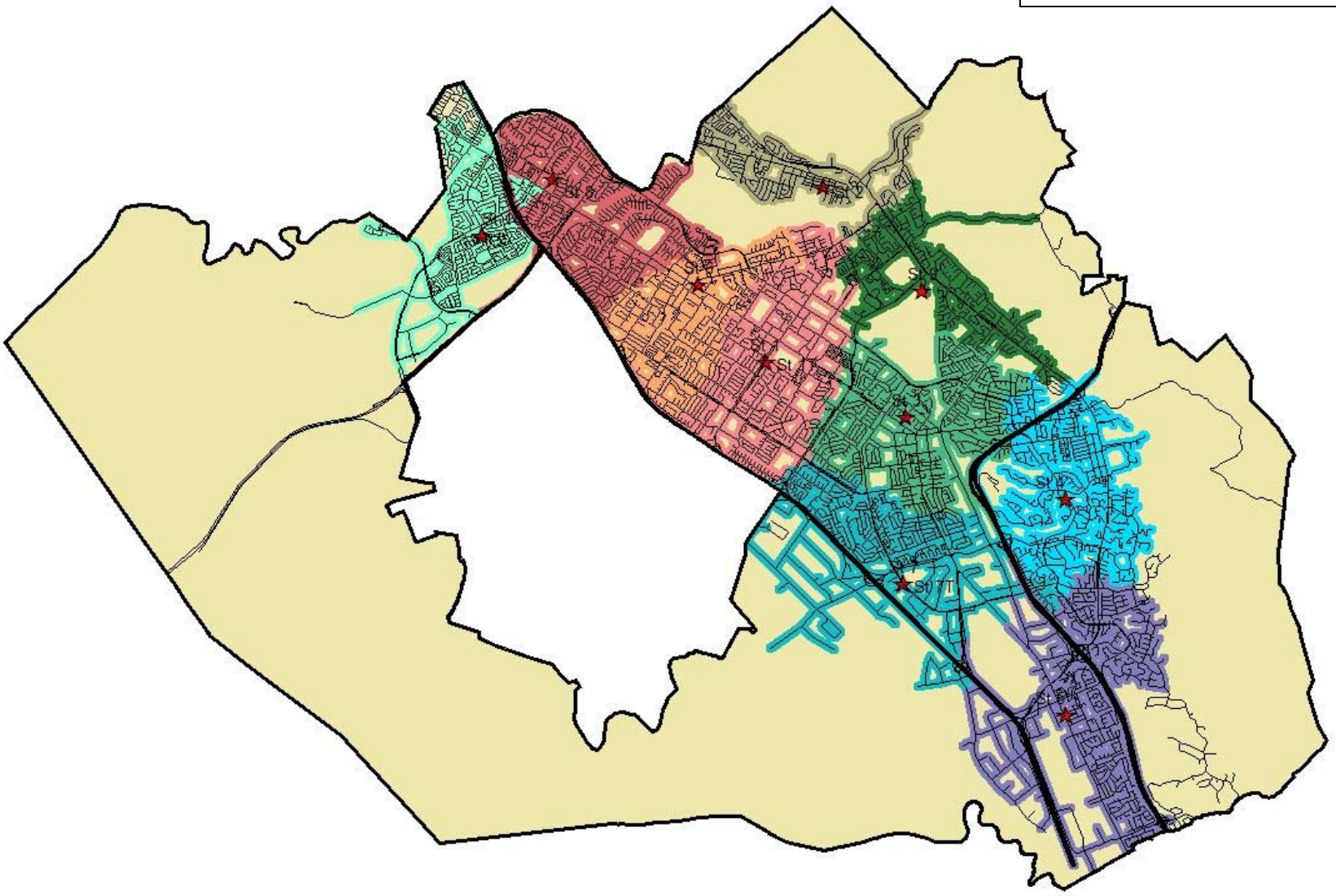

Figure 10-8
11 Fire Station
5-Minute, 30-Second
Response Area Coverage